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DRAFT

Maroon Bells-Snowmass Wilderness

Overnight Visitor Use Management Plan

Aspen - Sopris Ranger District, White River National Forest
Gunnison Ranger District, Grand Mesa, Uncompahgre and Gunnison National Forest
Pitkin and Gunnison Counties, Colorado

November 2016

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Table of contents

Chapter 1: Introduction

Introduction……..3
Purpose and Need for the Overnight Visitor Use Plan……4
Wilderness Background…….. 7

Chapter 2: Current Management Direction

Forest Land and Resource Management Plan Direction……..…. 8
Other MBSW Management Actions and Plans ……..…… 13

Chapter 3: Existing Maroon Bells-Snowmass Wilderness Conditions

Social Setting……...…….15
Biophysical Setting…….. 19
Managerial Setting…….. 21

Chapter 4: Proposed Maroon Bells-Snowmass Wilderness Overnight Visitor Use Management Plan

Proposed Plan and Methodology ……23
Management Area Zones Map……. 25
Overnight Visitor Use Adaptive Management Indicators and Thresholds……..…..27
Proposed Plan – Tables……..….. 30
Monitoring…….. 33

Chapter 5: Next Steps

Next Steps……..34

Glossary of Terms……..35

Figures:

Figure 1: Locator Map of Plan Area
Figure 2: Map of Forest Plan Wilderness Management Area Prescriptions
Figure 3: Map of Proposed Overnight Visitor Use Management Zones

Appendices:

Appendix A: References
Appendix B: Public Outreach
Appendix C: Proposed Plan Allocation tables
Appendix D: Additional Forest Land and Resource Management Plan Direction
Appendix E: Maroon Bells-Snowmass Wilderness Special Order
Appendix F: Overnight Zone Maps (30)

Chapter 1: Introduction

The White River National Forest (WRNF) is proposing an Overnight Visitor Use Management Plan (hereafter referred to as 'the plan' or plan) for the Maroon Bells-Snowmass Wilderness (MBSW). This draft plan will be analyzed under an Environmental Assessment in accordance with the National Environmental Policy Act (NEPA). The purpose of the plan is to guide overnight visitor use management in the MBSW within the legal framework of the Wilderness Act of 1964, United States Forest Service (USFS) policy and regulations and in conformance with the current direction found in the WRNF 2002, Land and Resource Management Plan (LRMP) and the Grand Mesa, Uncompahgre and Gunnison National Forests – (GMUG) LRMP as amended in 1991. The proposed plan is an activity implementing a land management plan as described in 36 CFR 218 Subparts A and B. The draft Plan addresses overnight visitor use management and stewardship of 181,535 acres within the MBSW.

The plan will guide the creation of an overnight visitor use management strategy to restore and preserve natural conditions by addressing the biophysical impacts that are occurring due to the increase of overnight use within the MBSW. The plan's intent is to address overnight visitor use across the entire MBSW with an adaptable, long term strategy to sustain wilderness character qualities of naturalness and undeveloped. In order to reflect overnight use patterns in the MBSW, the plan divides the wilderness are into overnight camping zones. The plan also defines and allocates the total number of "Groups At One Time" (GAOT) per camping zone to meet current LRMP direction. The allocated number of GAOT serves as the primary threshold, which when exceeded will trigger a limited overnight permit system for that zone.

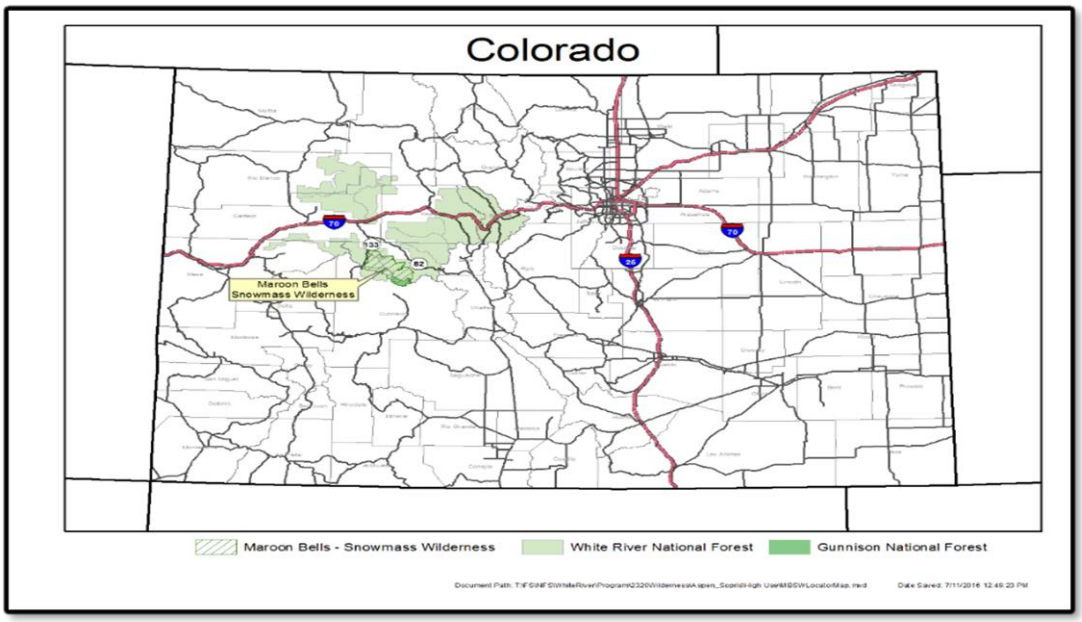


Figure 1. Plan Area

This document is not a final decision of what the Plan will do, rather, the purpose of releasing the Draft Plan is to generate public comments, which will be used to revise it if needed or to generate potential management alternatives to be included in the Environmental Assessment (EA) and ultimately in finalizing direction for the Overnight Visitor Use Management Plan.

This plan was developed based on input from stakeholders, visitors, public meetings, monitoring, USFS staff expertise, research and knowledge of similar natural resource issues occurring in many "high use" wilderness areas across the country.

Purpose of the plan

In response to increasing natural resource degradation issues and management challenges, the purpose of the plan is to provide for comprehensive management of overnight visitor use within the MBSW. The plan seeks to balance the preservation of natural conditions by addressing biophysical impacts resulting from overnight use, while continuing to provide opportunities for primitive and unconfined recreation opportunities.

The proposed plan includes:

- Description of comprehensive desired future conditions including a defined overnight number of "Groups At One Time" (GAOT) per camping zone in accordance with existing LRMP direction;
- Further management guidance described in indicators and thresholds to implement existing LRMP Management Areas (1.1, 1.2, and 1.3) designed to protect wilderness character and preserve the areas biophysical environment (natural and undeveloped),
- Adaptive management strategies and management tools that will monitor physical displacement, biophysical impacts and trigger the implementation of an overnight permit system if the defined overnight GAOT is exceeded for any camping zone in MBSW.

Need for the Plan

Increasing visitor use within the MBSW has been documented as a management concern since 1986 (WRNF LRMP) and was addressed in the 2002 LRMP revision. The need for conducting visitor capacity studies and permitting of use in high use corridors was addressed in the 1986 LRMP as well as a subsequent Wilderness Implementation Schedule (WIS) for the MBSW. Within certain locations (*Conundrum Hot Springs, Crater Lake and the 4 Pass Loop*) and high use travel corridors use has increased up to 285% from 2006 to 2015. This increase in use is

severely constrained by the relatively short season and geographically which further magnifies the associated impacts.

Peak crowds from July through September overwhelm the number of available camping sites leading to the creation of new sites. This spreading impact from increasing and concentrated overnight use is the primary issue related to visitor use management in the MBSW.

Concentrated use patterns exacerbate social and physical resource degradation. Four of twenty four trailheads account for 82% of all overnight visitors and a disproportionate share of negative impacts (see Figure 2). Partners, local communities, visitors and stakeholders have witnessed the impacts and continue to ask the USFS to implement management actions to address degradation occurring to MBSW physical (wildlife, tree cutting/fire scars, trash, human waste, campsite hardening and proliferation), social (solitude, lack of ethics, crowding, noise) and administrative actions (parking, bear canisters, emergency closures, etc.).

To date, the Aspen-Sopris Ranger District has taken all available steps to address these issues outside of conducting a capacity analysis that would determine a defined number of overnight GAOT per camping zone and limiting use.

From 2007 to 2015, overnight visitors on the ten most popular trails increased 115%. This more than double increase in visitation in only nine years has a clear, direct correlation to the negative biophysical impacts to vegetation, soil, forest, and water quality.

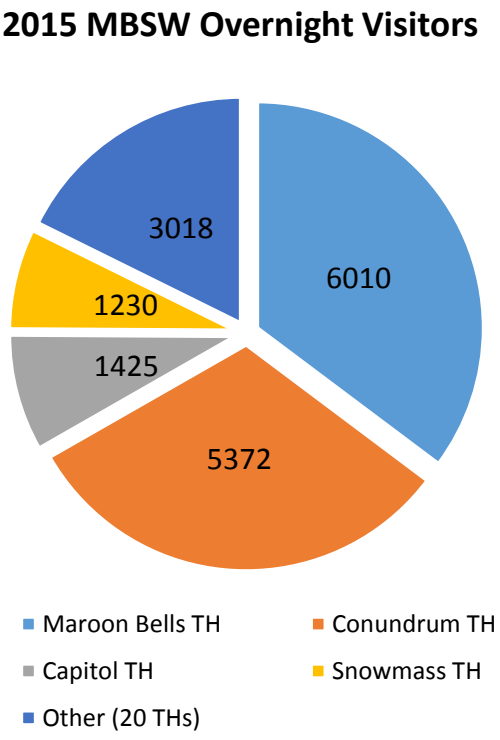


Figure 2. Source. USFS required registration data for overnight visitors

An inventory completed in 2010 documented 728 campsites within the entire MBSW that impacted an approximate area of 559,000ft² (~35 football fields).

Wildlife conflict, search and rescue operations, and rapidly increasing use levels have become significant management challenges. The biophysical impacts continue to cause the most significant degradation to natural conditions.

Population and recreation growth projections indicate that these issues will continue to intensify. Colorado's *2014 Statewide Comprehensive Outdoor Recreation Plan (SCORP)*, states that between 2000 and 2010,

Colorado's population increased by 16.9 percent and the total population was estimated at almost 5.2 million. Forecasts estimate that Colorado's population will grow to just under 6 million by 2020 and over 7 million by 2030. Approximately 4 million Colorado residents participate in a form of outdoor recreation annually.

The Maroon Bells "Scenic Area" (*Maroon Lake*) is one of the most iconic tourism destination areas in Colorado and currently provides recreation opportunities for over 300,000 visitors a year. At the same time visitation into the MBSW is experiencing significant increases in visitation.

The forest identified the "niche" of the Maroon Scenic Area on the WRNF and within Colorado and has planned for high use visitation there and now needs a management response for high use visitation for the adjacent MBSW. "Land managers strive for balance between meeting the demand for use and maintaining the health of the irreplaceable natural resources…" (2014 SCORP, sect. 2, page 2).

While increased visitation has resulted in many issues, overnight camping has created the most significant issues that must be addressed immediately to protect the unique values associated with the MBSW. A complex suite of indirect to direct management actions taken over the past several decades have not been effective at preserving natural conditions in the face of this increasing pressure. Thirty years of educational messaging focused on outdoor ethics have been implemented *(see page 14)* followed by special orders when interpretation and education efforts were no longer proving to be successful.

Escalating the management response related to overnight use is needed to prevent further spread of the indiscriminant negative impacts occurring.

Objective of the Plan

- Reduce biophysical impacts from overnight visitor use
- Manage the MBSW in accordance with the Wilderness Act and current management prescriptions in the White River and Gunnison National Forests, Land and Resource Management Plans(LRMP's) thereby; preserving wilderness character of the MBSW by sustaining natural and undeveloped qualities.

Background

The MBSW area comprises a surface area of 181,535 acres in central Colorado that is managed jointly by the WNRF and GMUG. The MBSW was established by Congress in 1964 as part of the enabling legislation for the Wilderness Act. It was enlarged to its present size by the 1980 Colorado Wilderness Act. There are 22 trailheads on the WRNF and 5 on the GMUG that access a trail network of 173 miles. Pitkin and Gunnison Counties share joint jurisdiction of the MBSW with the Forest Service. The WRNF is the lead forest for planning and management of the entire wilderness.

The MBSW contains 9 trailed passes over 12,000' and 7 peaks over 14,000' and has been known for decades as one of the most iconic and picturesque mountain ranges in the country. Maroon Lake and the surrounding area (just outside the Wilderness boundary) was designated as a Scenic Area in an effort to manage the increasing number of visitors, transportation challenges, commercial uses, etc. The Scenic Area sees over 300,000 visitors annually which has escalated visitation into the adjacent Wilderness.

The degradation of natural conditions caused by high overnight use levels has been a longstanding issue. The 1988 MBSW Wilderness Implementation Schedule (WIS) noted that, "Levels of use meet or exceed capacity as a result of excessive overnight visitation use at Conundrum Hot Springs, Snowmass Lake and Capitol Lake on weekend days" (p.13). Direction from this plan stated that overnight use must be reduced or redistributed at these destinations.

Research shows that the main driver to visitor's satisfaction in wilderness areas directly correlates to overnight/campsite encounters (Cole and Hall, 2009). Occupied campsite density has been determined to be a key driver for satisfaction. Research states that to most users having tents right next to their tent is perceived as crowding. It reduces one's satisfaction and effects the overall experience of their trip.

Chapter 2: Current Management Direction

Legislative Direction

Two pieces of legislation guide the management of use and activities in portions of the analysis area. The first, is the Wilderness Act of 1964 which designated 14,843 acres in the MBSW. The second is the 1980 Colorado Wilderness Act which designated an additional 166,682 acres into the MBSW. Both of these pieces of legislation requires that these lands be managed to preserve the wild character of the area.

USFS Regulations and Policies

The most applicable requirements for developing plan content for recreation and designated areas under 36 CFR Part 219 –Planning and Subpart A are found in the sections on sustainability and multiple uses (36 CFR 219.8 and 219.10). Sustainability is defined as "the capability to meet the needs of the present generation without compromising the ability of future generations to meet their needs," incorporating the spheres of ecological, economic, and social sustainability (36 CFR 219.19).

This management plan was prepared in accordance with the following authorities; National Forest Management Act (NFMA), National Environmental Policy Act (NEPA) and Wilderness Act and other laws and regulations, USFS policies and direction.

Land and Resource Management Plan Direction (LRMP)

A LRMP provides guidance for all resource management activities on a national forest. Through its goals, standards and guidelines, and management area direction, the LRMP provides the overall guidance for management of the MBSW.

The Recreation Opportunity Spectrum (ROS) classification system is designed to characterize and help manage a spectrum or range of recreation opportunities across the forest. ROS is used as guidance for managers when prescribing desired conditions and objectives for management areas as part of forest planning decisions. While ROS is not prescriptive, it serves as a tool to identify and mitigate change.

Table 1. MBSW Forest Plan Management Areas

Management Area	Acres	Acres %
1.11 Pristine (WRNF)	25,776	14.20%
1.12Primitive (WRNF)	131,642	83.33%
(GMUG)	19,643	
1.13 Semi-Primitive (WRNF)	3,942	2.47%
(GMUG)	532	
Total		100.00

**Note- total acreage discrepancy of +10 acres is due to margin of error inherent in geospatial data.*

ROS classes define the level of recreation use, impact, development, and management that an area should experience over the life of a LRMP. While the MBSW is jointly managed by the White River (WNRF) and the Gunnison National Forests (GMUG), the WRNF is the lead managing Forest for the MBSW and the subsequent management direction.

The GMUG's is currently in process of a LRMP Revision. On the GMUG portion of the MBSW, management descriptions are based on the most recent ROS inventory done in preparation for the LRMP revision process. The ROS inventory reflects the current condition and informs management area prescriptions. The GMUG ROD and Final LRMP will finalize management area prescriptions. If any decisions vary from management area prescriptions displayed in this plan, it may result in an update to this plan for only the portion of the MBSW on the Gunnison NF.

The following section describes and displays current wilderness management area direction. The management direction (management area prescriptions of 1.11, 1.12, 1.13) included in this section are only those that directly relate to the proposed plan. Specifically, wilderness management prescriptions from the LRMP's associated with describing desired conditions, standards and guidelines related to visitor use, visitor encounters, campsite density and campsite condition. Further LRMP direction can be found in Appendix D.

Management Area Prescriptions

Table 5 below displays management area guidelines for the MBSW area. The purpose of this plan is to refine and implement the existing management direction set forth and focus on impacts specifically related to overnight camping.

1.11 Pristine Wilderness

These areas provide the most outstanding opportunity for solitude and isolation. Structures and facilities are present only as necessary for resource protection when less obtrusive measures have been unsuccessful. User-created trails or game trails may exist but are not maintained or designated on maps or trail guides. Indirect methods of accomplishing management objectives predominate. Exceptions are allowed to insure impacts are contained and do not persist. The recreation opportunity spectrum (ROS) for this management area is pristine year-round. Scenery is managed to provide a scenic integrity objective of very high.

1.12 Primitive Wilderness

Some designated campsites may be available. The opportunity exists for a moderate-to high level of risk and challenge. There is a low incidence of contact while traveling cross-country. Somewhat more frequent encounters should be expected when on trails. Concentration of campsites is moderately high at trail junctions and popular destination points. The number of sites accommodates moderate use with no new sites forming over time. Outfitter and range permittee camps may be allowed. Pre-existing rights (such as mineral and water) may exist and be in operation. Maintained trails exist. Trail and bridge construction incorporate natural designs and native materials that complement the surrounding landscape whenever possible.

The minimum number of signs needed to provide for resource protection and direction at major trail intersections is used. The recreation opportunity spectrum (ROS) for this management area is semi-primitive non-motorized or primitive year-round. Scenery is managed to provide a range of scenic integrity objectives from high to very high.

1.13 Semi-Primitive Wilderness

Trail and bridge construction incorporate natural designs and native materials that complement the surrounding landscape whenever possible. Pre-existing rights (such as mining and water) may exist and be in operation. Sustaining and protecting natural conditions is emphasized. Day-use opportunities are common within this management area. Campsites are restricted to designated sites. Contact with other people is likely. The area provides low-to-moderate opportunities for solitude during the primary use season. Travel is primarily along a well-defined trail system. Trail tread is very evident and trails normally are cleared of downed timber.

There is the opportunity for a moderate level of risk and challenge. The recreation opportunity spectrum (ROS) for this management area is semi-primitive non-motorized year-round. Scenery is managed to provide a range of scenic integrity objectives from moderate to high.

Additional Forest LRMP standards and guidelines are described in Appendix D. Standards and Guidelines relative to overnight management are shown in Table 2 below.

Figure 3. Existing Forest Land and Resource Plan Direction -Wilderness Management Area Prescriptions

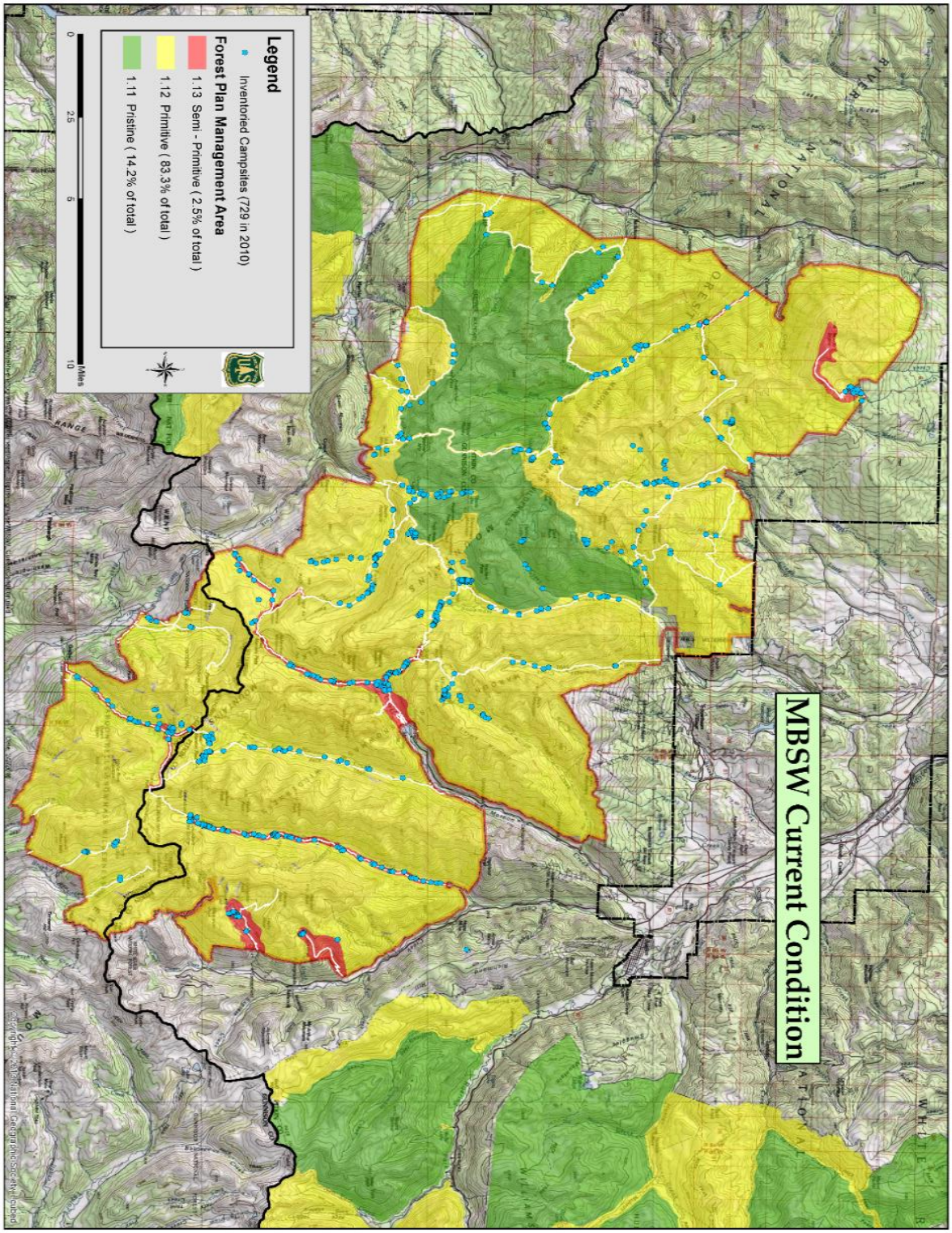


Table 2. 2002 – Forest Land and Resource Plan - Management Area Guidelines

Management Area	Encounter Guideline	Campsite Guideline	Campsite Density and Condition
1.1 Pristine	No more than 2 other parties encountered during cross-country travel per day on 80 percent of the days during each use season.	No other party within sight or sound of campsites should be encountered on 80 percent of the days during each use season.	Density of campsites will be low, not to exceed one site per acre. Most sites will be Cole Condition Class 1 and 2. Very few Class 3 sites will exist. Close and restore all other campsites.
1.12 Primitive	No more than 12 other parties encountered per day on a Forest Development Trail on 80 percent of the days during each use season.	No more the 6 other campsites within sight of sound of campsites on 80 percent of the days during each use season.	Density of campsites will be moderate, not to exceed three sites per acre or six sites per linear mile of trail. Many destination locations will be Cole Condition Class 2 to 3, with some 4. Manage Cole Condition Class 5 sites as either designated sites or rehabilitate to a lower class condition.
1.13 Semi-Primitive	No more than 20 other parties encountered on a Forest Development Trail per day on 80 percent of the days during each use season.	Restrict overnight camping to designated sites.	Concentrate use in Cole Condition Class 3 and 4 sites. Manage Cole Condition Class 5 sites as either designated sites or rehabilitate to a lower condition class.

Other MBSW Management Planning Efforts and Actions

Management challenges in wilderness areas experiencing high amounts of visitation has been a topic of researchers for decades. The MBSW has been at the heart of the conversation both locally and regionally. As early as 1988 the MBSW Wilderness Implementation Schedule (WIS) recognized management issues relating to the increasing number of visitors and the inability of the forest to meet LRMP desired conditions as well as sustaining wilderness character as defined in the Wilderness Act. In response to those challenges the 2002 WRNF LRMP added numerous

standards and guides for each wilderness management area prescription (1.1 Pristine, 1.2 Primitive, and 1.3 Semi-Primitive).

In addition, in response to ongoing management challenges, in 2006-2007 wilderness recreation forums were created with key citizen groups and a statewide core team to address how to mitigate the impacts and manage high recreation use in popular "magnet" Colorado wilderness destinations. Recommendations were on 35 Colorado wilderness areas. The MBSW was identified as one of the 3 "magnet" areas. Keeping pristine areas pristine, managing to minimize and repair environmental impacts, and the need to research social impacts were considered primary goals. Management "tools" recommended by the Focus Group included:

- PUBLIC EDUCATION
- MORE VOLUNTEERS
- SUSTAINABLE TRAILS
- EASE OF ACCESS
- CONTROLLED PARKING
- OVERNIGHT REGISTRATION
- FIRE RESTRICTIONS
- DOG POLICIES
- DESIGNATED CAMPSITES
- MANAGE HUMAN WASTE
- GROUP SIZE LIMITS
    - *LIMITED ENTRY PERMITS*
    - *LENGTH OF STAY LIMITS*

Implementation of LRMP direction has been occurring since 2002 utilizing the "minimum tool" philosophy. To date the Forest has instituted most all of the core teams recommendations as well as the LRMP "suite of tools" available except the use of limited entry permits.

Included in the suite of tools and pursuant 16 U.S.C. § 551 and 36 CFR §§ 261.50(a) and 261.50(b) and other governing Forest Service Regulation, the MBSW Special Order (*see Appendix E*) has required actions or prohibitions for wilderness preservation including: group size limits (*10 or less people),* fire restrictions, dog policies, mandatory food storage (*bear canisters*), camping restrictions, stock use and feed requirements, required overnight registration, prohibitions on mechanized use and trail etiquette.

In response to ongoing degradation issues and concerns, from 2007-2015 numerous focused studies occurred in the MBSW that looked at high use impacts, wilderness character study and campsite inventories (*Massman, Richie, Moore, Larson, etc.).*

Reliable ecological and social data has been collected and analyzed to quantify the correlation between use levels and resource damage. This plan proposes to implement the final tool available to address resource degradation occurring in some of the MBSW high use corridors; limited entry permits.

Starting in 2012 the forest and other interested parties conducted public outreach regarding the resource degradation issues occurring in the MBSW with the GMUG, local governments, adjacent communities, interested parties, stakeholders and permittees as well as statewide user organizations. To date (31) meetings, round- tables, news-paper articles, radio shows, presentations, etc. have occurred. (See appendix B). After 3 years of public outreach the following preliminary issues were identified to frame the planning process.

Public Identified Issues:

1. Visitor demand during peak season, increased crowds, use patterns at popular destinations and routes is causing increased campsite impacts leading to soil compaction, loss of vegetation, etc.
2. Concentrated bio-physical impacts associated with increasing overnight visitation include: campfire impacts, exposed human waste, littering, and wildlife conflicts.
3. Perpetually increasing demand for the finite wilderness resource is causing visitor competition, conflict and displacement.
4. Agency management capacity is decreasing as the need for mitigating management action is increasing.
5. Current conditions in the MBSW are exceeding LRMP direction relating to visitor use management.

Chapter 3: Existing Conditions and Trends

Existing Conditions and Trends

This chapter presents the current conditions for visitor management related parameters in three themes: social, bio-physical and managerial settings. Conditions and trends are displayed across the entire MBSW. Monitoring data and site specific conditions for each zone will be analyzed in the Environmental Assessment. How the current conditions will be measured as to whether they meet or exceed current management direction will be further discussed in Chapter 4.

Social Setting

General Visitor Characteristics and Trends

The MBSW is a popular recreation destination and is marketed throughout the world. Various recreation modes include: day hiking, backpacking, trail running, mountaineering, hunting, photography, horseback riding and skiing. A small minority of non-recreation visitors include: research, rescue, commercial operator, game management and land management personnel. Deep and unstable continental snowpack constrains the primary visitation season to the months of June through October.

Overnight required registration data (observed compliance 98%) shows an increasing trend on a few popular trails and stable use levels elsewhere.

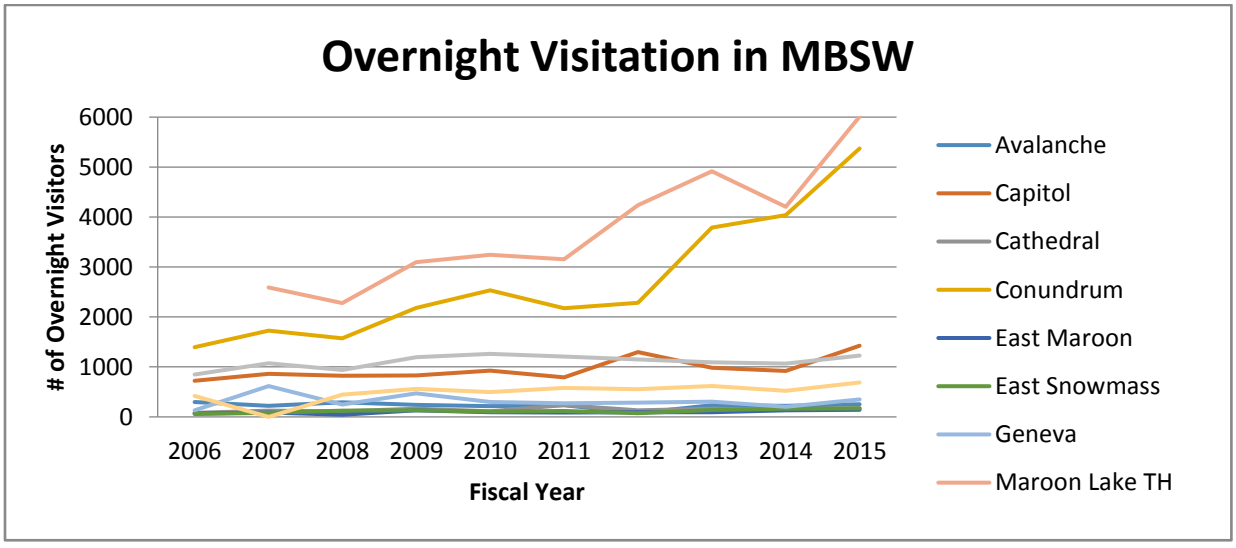


Figure 4. Source: USFS required registration data for overnight visitors

The US Census Bureau estimated Colorado's state population to be 5,456,574 in 2015 (Denver Post, Svaldi). This total ranked Colorado as the second fastest growing state with a growth rate of 1.9%, which is more than double the national average of .79%. Using the census data, the state demographer has estimated the 2040 Colorado Population to reach 7,800,000 (Birkeland and Hubbard). This 46% increase over the next 25 years in the regional visitor base for the MBSW has worrying implications for visitor impact trends to natural conditions.

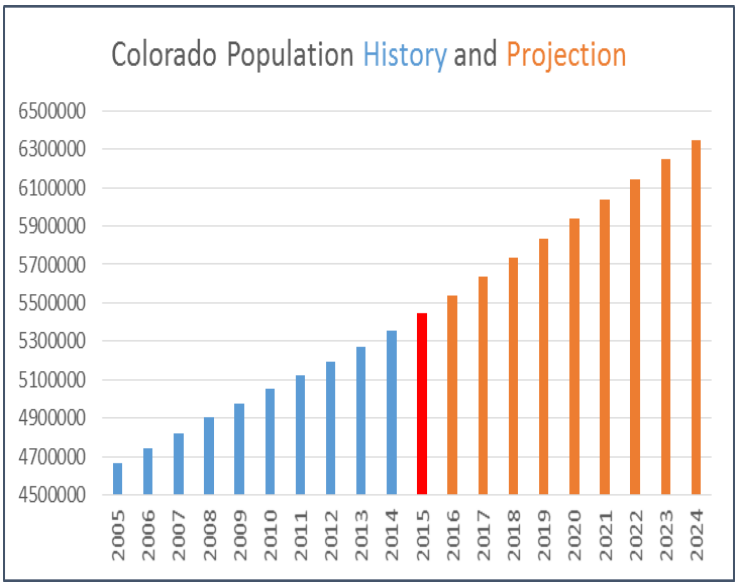


Figure 5. Source: Colorado State Demography Office

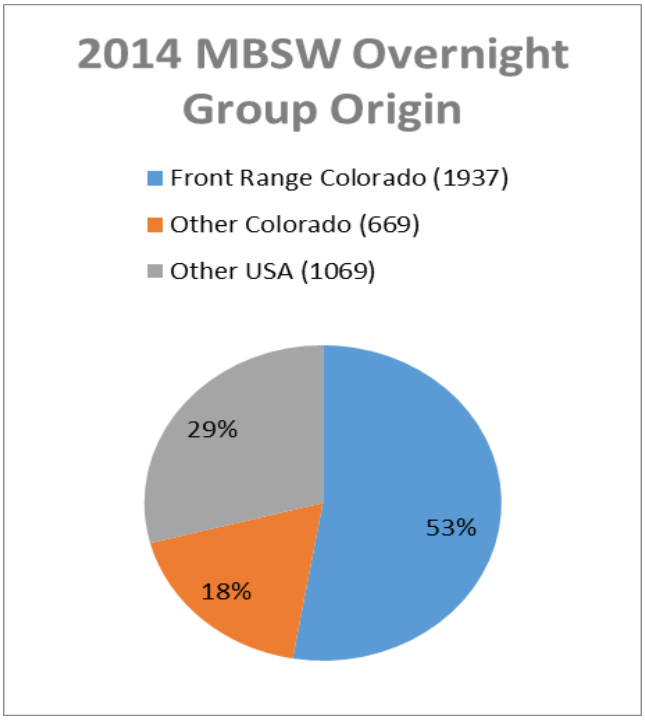


Figure 6: USFS required registration data for overnight use

Of all overnight visitors to the MBSW, 71% are from Colorado. If regional visitation patterns to MBSW continue unchecked in tandem with regional population growth projections, it can be assumed that negative effects to the natural environment will follow a similar trajectory.

Overnight visitation represents approximately 16% of total use wilderness wide as determined by comparing trail counter and overnight registration data. In 2015, 17,000 overnight visitors entered the MBSW.

Using this data we can estimate that annual Wilderness visitation, day and overnight use is approximately 106,250 total people. The average group size for day visitors is 2.48 and 2.77 for overnight groups. The average length of stay for overnight groups is 2.94 days. Overnight visitation is largely weekend focused (entering Friday or Saturday - 45.81%) and this trend is even more pronounced in the fall season.

Spring snowpack prevents most parties from accessing backpacking routes and popular destinations until late June while a significant amount of use continues through September into October.

The 2002 White River National LRMP contains standards and guidelines for the management of the MBSW. To monitor opportunities for solitude, daily group encounters guidelines have been set for the different management area classes (See Chapter 4).

Public education has been the primary focus of the Wilderness ranger program for decades. In addition to ranger station visitor information staff, agency websites and trail head kiosks, the broad education campaign includes wilderness rangers who contact thousands of visitors per year in the backcountry with a focused, professional Leave No Trace message.

Trail	% Overnight Use	% Day Use
Avalanche	2	98
Cathedral	1	99
Conundrum	44	56
Capitol	13	87
Snowmass	27	73
Maroon Lake	8	92
Thomas Lakes	14	86
American	1	99
Copper	10	90
Average	**14**	**86**

Table 3 (above) Source: USFS required registration data for overnight visitor by trail

Percent of Overnight Visitations	
Summer	73.85
Fall	25.70
Winter	.08
Spring	.38

Table 4 (above): Source: USFS required registration data for overnight visitor

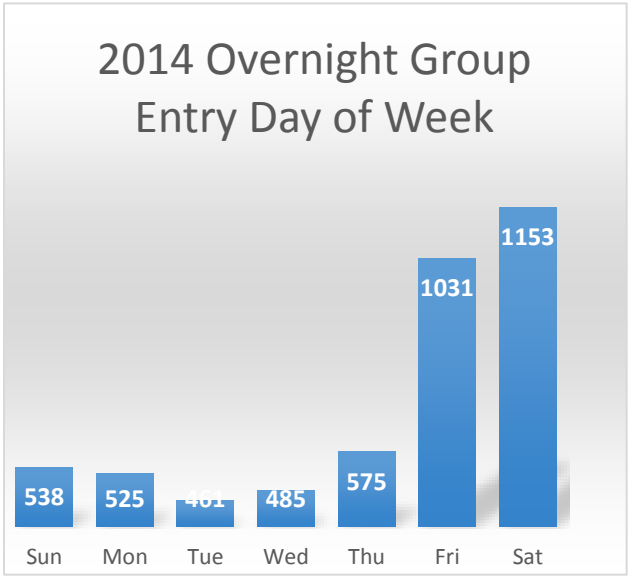


Figure 7 (above) Source: USFS overnight group entry by day of week.

2015- MBSW Overnight Group Encounters

Location	Guideline	Days patrolled	Days Exceeded	% of Days Exceeding Guideline(up to 20% or <is acceptable
Capitol Creek	12	10	1	10%
Geneva Lake	12	10	3	30%
North Fork	12	9	2	22%
West Maroon	20	29	2	7%
Maroon Snowmass	20/12	52	3	6%
Conundrum	20	33	19	58%

Table 5: Source: USFS Overnight Group Encounters

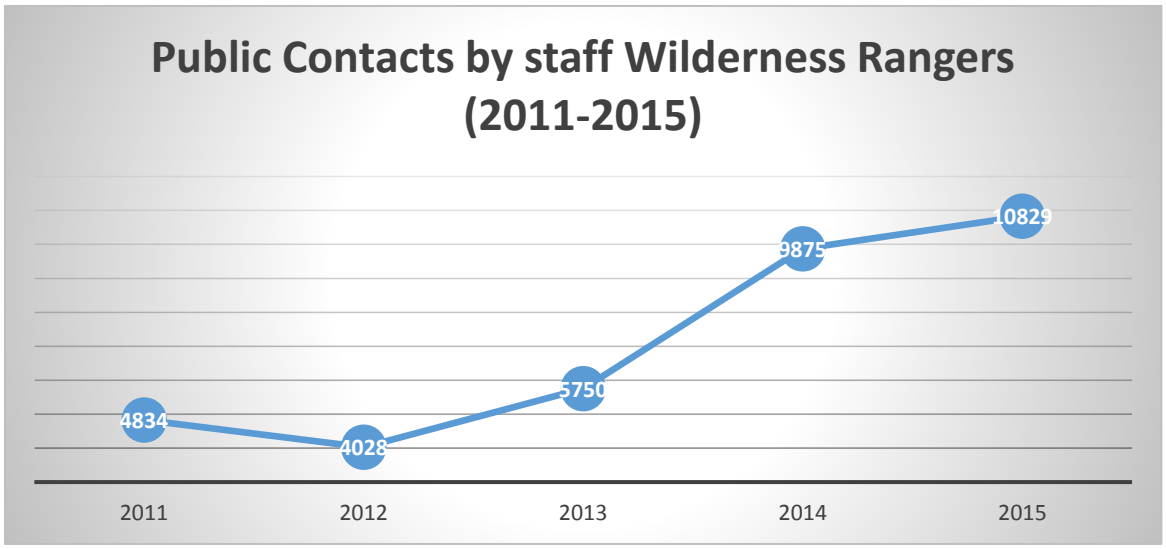


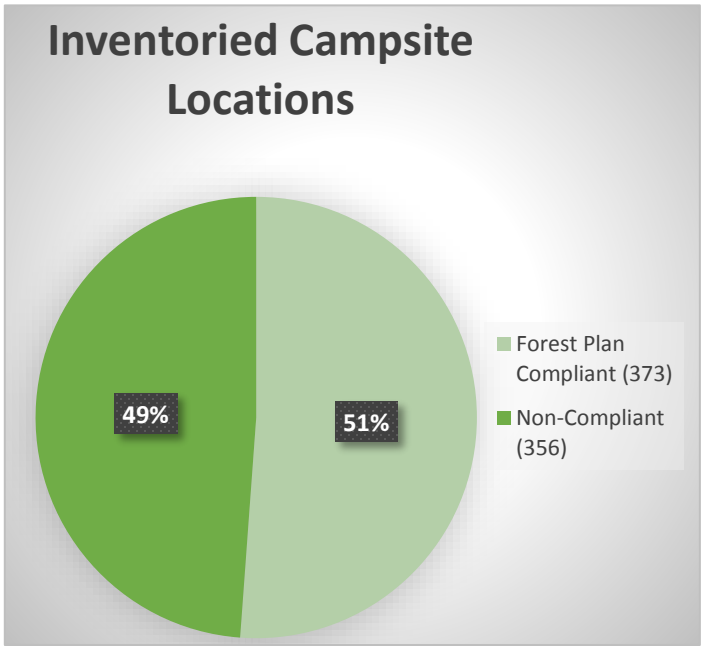
Figure 8 Source: USFS Overnight Group Encounters

Biophysical Setting

General Natural Resource Conditions and Issues

The natural conditions of the MBSW are experiencing a degradation in quality correlated to the visitor trends described above. The primary biophysical impacts of concern are campsite that lead to denuded bare soil, hard-pan soil and total loss of vegetation, campfire impacts, trash proliferation and exposed human waste.

A recreation site inventory was completed for the entire MBSW over the years of 2008 through 2010. 729 total campsites were documented with an average impact rating of 2.99 on a scale of 0 (trace) to 8 (most heavily impacted). Altogether these sites affect an area of approximately 559,000 ft.^{2} which is about 35 American football fields. The WRNF LRMP prescribed a mandatory standard that campsites shall be greater than 100 ft. from system trails, lakes and streams. Of the 729 inventoried sites, only 51% or 373 sites met this standard (see Figure 9).



Figures 9: Source: USFS recreation site inventory 2008 – 2010

Long term heavy visitation and campfire use along popular routes and at destinations has exhausted all available firewood. Persistent campfire use despite regulatory prohibition requires the use of standing green trees as a firewood source. Significant tree damage and forest structure impacts have accumulated as a result of this behavior. The sterilization of soil and scaring of rocks associated with illegal campfire use is also causing negative effects to natural conditions. From 2011 to 2015, rangers removed and naturalized 964 illegal campfire rings in the MBSW.

Campsite impact ratings previously done under the Cole Condition Class are now done under the Rocky Mountain Regions "Rapid Assessment" campsite monitoring protocols. In summary the Rapid Assessment considers several factors that are rated that include: Disturbance to ground cover, tree damage, and area disturbed by camping activities (tent pads, stock holding areas, etc.). .). Scoring reflects ratings of all the elements above with 0 = trace site and 8 = highest degree of disturbance.

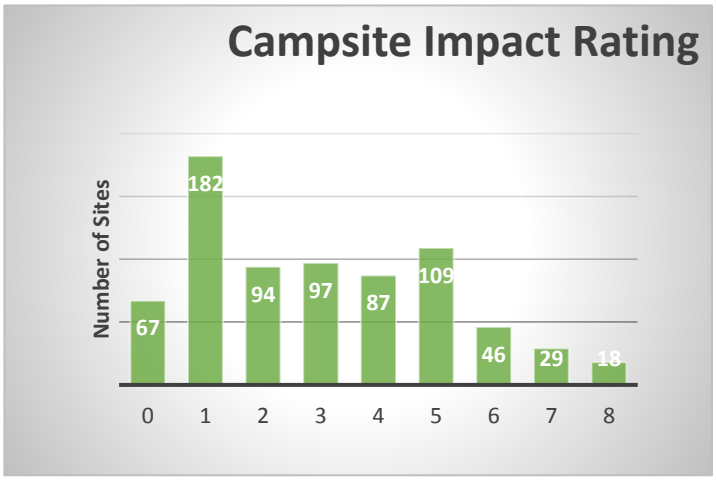


Figure 10: Campsite Impact Rating

Littering, accidental or intentional, macro or micro, continues to pile up unnatural waste in the MBSW despite decades of Leave No Trace educational efforts.

Wilderness rangers packed 1,101 lbs. of trash out of the MBSW in 2014 and 2015. Burning trash is still a common practice that releases toxic fumes and results in trashy fire pits that socially reinforce this behavior. A 2007 study of high use areas within the MBSW (Massman) documented a prevalence of exposed human waste at campsites near several popular destinations.

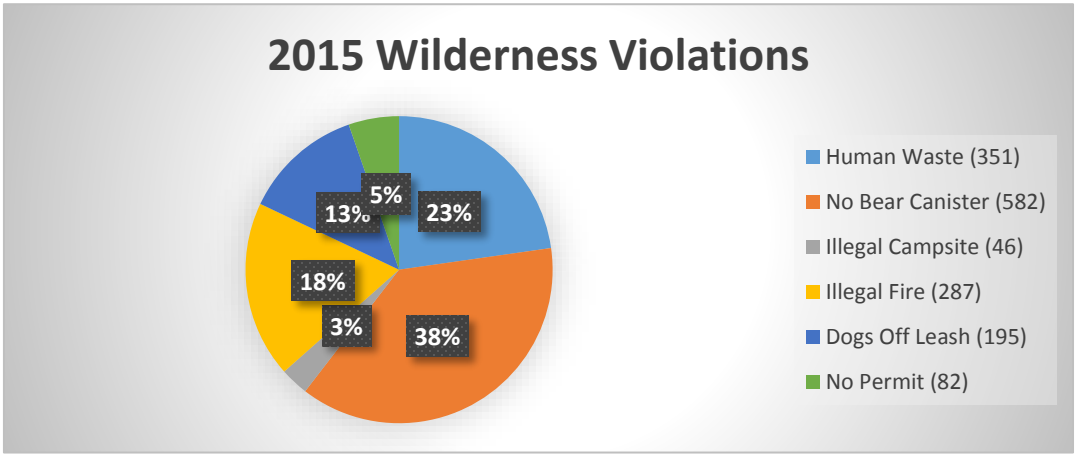
In 2014 and 2015, rangers buried 512 incidences of exposed human waste. Concentrations of exposed human waste may lead to environmental contamination, human sanitation and wildlife toxicity concerns.

Managerial Setting

Condition and Character of Visitor Management Effort

The high use social setting and correlated impacts to the bio-physical environment have resulted in a complex managerial situation for the MBSW. Management direction was defined most recently in the WRNF LRMP of 2002, incorporating direction found in the Wilderness Implementation Schedule of 1988, the 1980 Colorado Wilderness Act and the Wilderness Act of 1964. Observations and years of monitoring have shown limited effectiveness of the current management strategy in the face of ever increasing pressure and where conditions are outside of LRMP guidelines. As education actions fail to resolve impactful visitor behavior, the list of special regulations have grown extensive and complex. A bear food storage requirement was added in 2015 to protect bears and humans from habituation. Designated campsites in 6 zones attempt to concentrate visitors on sustainable campsites but weekend use levels overwhelm the available sites. Regular visitor non- compliance with regulations is a significant source of social and resource degradation (see Figure 11).

Figure 11. Source Wilderness Ranger Patrol Logs



Mitigating visitor impacts to high use corridors in the MBSW consumes 80% of management effort on the Aspen-Sopris District leaving few resources for stewardship of the other four Wilderness areas in the program. An extensive education effort with staff and intern rangers made contact with over 10,400 visitors in the MBSW in 2015. A required registration system has been in place since 2003 and is a central education and monitoring tool.

Free, voluntary use human waste pack-out bags are supplied at two high use trailheads. A large volunteer ranger organization, regularly updates trailhead kiosks and a close partnership with local media extend the educational outreach.

Currently there are 20 commercial Outfitter and Guides permitted within the MBSW. Permitted activities include guided; hunting, hiking, backpacking, horseback riding, photography, interpretation and education, research and outdoor recreation activities and skills.

Additional visitor management related issues include the escalating incidence of motorized rescue operations, illegal commercial guides and mechanized intrusions.

Chapter 4: Proposed Overnight Visitor Use Management Plan

In response to increasing biophysical damage occurring from overnight visitation and in conformance with Forest Land and Resource Management Plan (LRMP) direction, an overnight visitor use management strategy is needed. As part of the planning process a study was completed that defined the Maroon Bells-Snowmass Wilderness (MBSW) physical capacity for overnight visitors. The overnight visitor capacity study took into consideration visitor use patterns and trends related to overnight use and the entire MBSW was zoned so as to better define each zones capacity (see Map #2). In summary, the plan incorporated current LRMP desired condition, standards and guidelines into measurable indicators and thresholds for overnight camping zones.

Current LRMP wilderness direction is based on group encounters (referred to as "parties encountered"). Therefore, the addition of a new indicator to monitor overnight "Groups At One Time" (GAOT) per camping zone was needed in order to specifically address and manage the biophysical impacts in conformance with existing LRMP direction. The GAOT indicator and associated thresholds for overnight use in each management area is supported by years of Aspen-Sopris District monitoring and campsite inventory data.

The GAOT overnight allocation is the primary indicator, the first and most sensitive trigger for going to permit system. Once that trigger is reached within a zone, that zone would require a permitting system (see tables 7-9). The plan includes an adaptive management strategy, so only those zones that exceed thresholds would have a management actions triggered and implemented.

Methodology for Allocation of "Groups At One Time"

A campsite inventory was completed in 2010 that documented 729 impacted campsites across the entire MBSW. Of these, 373 meet 2002 LRMP standards for distance from lakes, streams and system trails. These compliant campsites form the baseline of the overnight Groups At One Time (GAOT) capacity.

The foundational layer for the capacity analysis was the 2002 LRMP management area mapping. Geographically manageable zones based on watersheds that recognize visitor use patterns were laid over the top of management areas (see Figure 12). The number of LRMP compliant campsites within each of these zones formed the baseline number of overnight GAOT for that zone. These baseline compliant campsites were further filtered by desired occupied campsite densities according to management area prescriptions (Chapter 2).

In the semi-primitive management class where the desired condition for campsite density is to restrict camping to designated sites, the zone GAOT capacity will equal 100% of the compliant

campsites. In the primitive and pristine classes a lower density of occupied campsites is required to achieve the desired bio-physical, social and managerial setting objectives (desired condition).

Thus, the GAOT capacity for zones classified as primitive and pristine will be a standardized portion of the baseline compliant campsites. This resulted in 30 unique zone GOAT allocations to best reflect visitors use patterns and to utilize the minimum tool in regards to proposing the least restrictions while preserving the LRMP intent. This GAOT capacity allocation method addresses the management issues identified in Chapter 3. See Appendices for separate Overnight Camping Zone Maps.

Figure 12. Proposed Overnight Zones

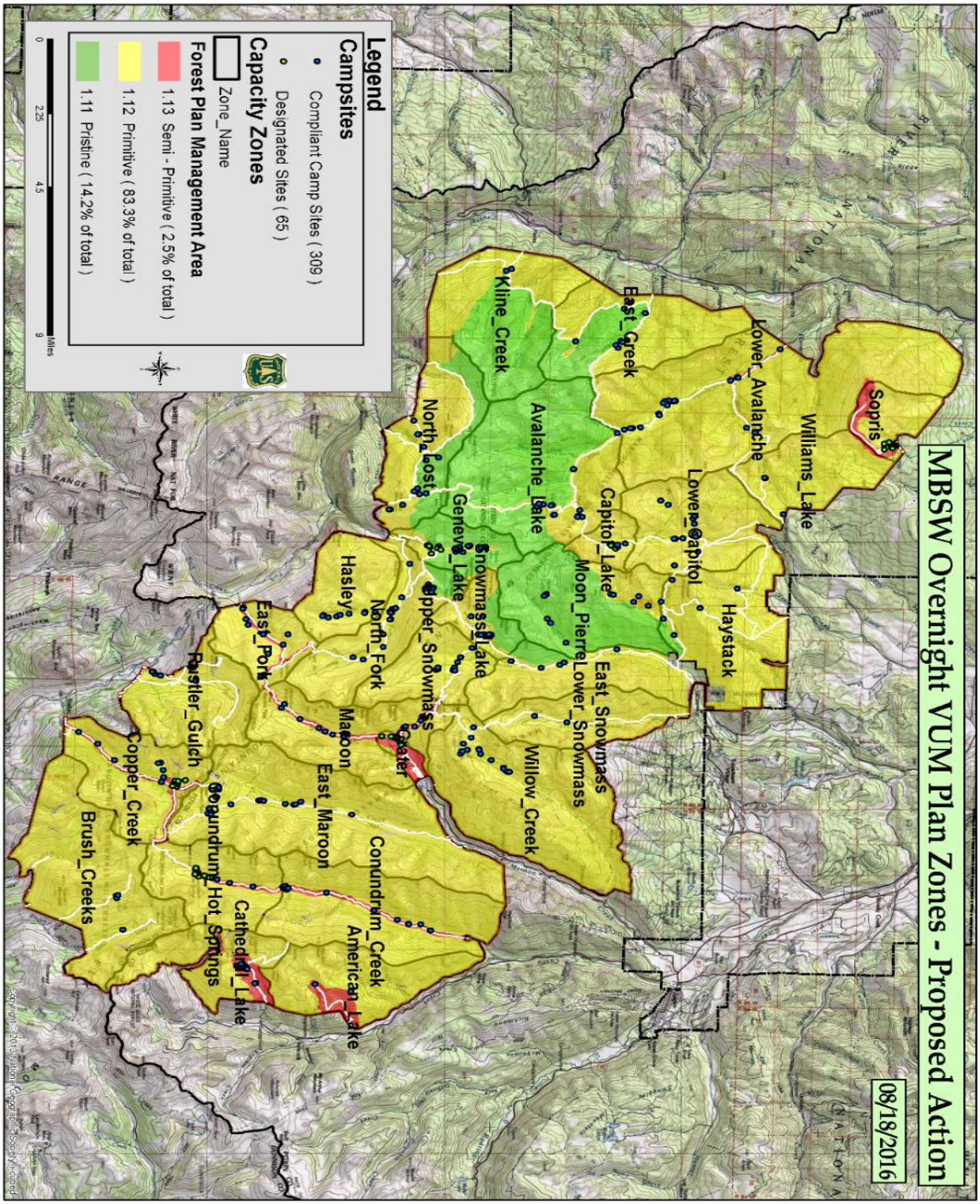


Table 6. reflects the total number of inventoried campsites that meet the 2002 forest plans "forest-wide" standard which states: *"Prohibit camping within 100 feet of lakes and streams and system trails, unless exceptions are justified by terrain or specific design that protects the riparian and aquatic ecosystems."* The total proposed allocation within each "overnight camping zone " considers LRMP MA prescriptions and applies the associated % of compliant campsites in order to meet the desired conditions and guidelines.

This resulted in the following: 100% of the inventoried compliant campsites in "1.3 Semi-Primitive" MA's would be allocated, within "1.2 Primitive" MA's 75% of compliant campsites are allocated, and for "1.1 Pristine" MA's 50% are allocated. There can be more than one forest plan MA per overnight camping zone (see Figures 2 & 3 and Appendix E for individual zone maps).

Table 6. Proposed GAOT overnight allocation per zone

Overnight Camping Zones - Groups At One Time Allocations		
MBSW Zones	**Total existing compliant Campsites**	**Proposed GAOT Allocation by Zone**
American Lake	2	2
Avalanche Lake	17	11
Brush Creeks	4	3
Capitol Lake	12	9
Cathedral Lake	14	14
Conundrum Creek	16	16
Conundrum Hot Springs	22	20
Copper Creek	16	15
Crater	11	11
East Creek	9	6
East Fork	10	9
East Maroon	21	16
East Snowmass	2	2
Geneva Lake	18	14
Hasley	9	7
Haystack	6	5
Kline Creek	2	2
Lower Avalanche	26	20
Lower Capitol	14	11
Lower Snowmass	6	5
Maroon	18	17
Moon Pierre	11	7
North Fork	25	19
North Lost	13	9
Rustler Gulch	7	5
Snowmass Lake	20	15
Sopris	13	13
Upper Snowmass	9	7
Williams Lake	4	3
Willow Creek	17	13
Grand Total (30)	**374**	**302**

Adaptive Management-

Indicators, Thresholds and Management Actions

An adaptive strategy defines desired conditions with indicators and thresholds standards. When thresholds are exceeded for a Land and Resource Management Plan (LRMP) Management Area (MA), management actions are triggered to achieve compliance. These triggered actions are phased in so that the least intensive intervention that achieves the desired conditions is utilized (minimum tool). This project is expected to result in primarily temporal displacement and/or distribution of current visitor use by implementing the capacity allocation. The adaptive management strategy will allow for monitoring of physical displacement and implement a permit system if the capacity is exceeded for any zone in MBSW. This plan sets management indicators and thresholds for overnight use at or below the defined allocated number (capacity) that was determined.

The proposed plan tables below (Tables 7, 8, 9) display indicators, thresholds and management actions for each LRMP MA prescription. There are several columns per table; content in the columns is defined as follows:

• **Indicator:** Specific, measurable variables that are indicate the status of a specific desired condition.

• **Thresholds:** The minimum acceptable condition for change in indicators, which serve as triggers for management action when exceeded.

• **Management Actions:** Implemented to preserve or restore desired conditions, generally in phases, after monitoring documents that a threshold is exceeded.

Indicators

The indicators were selected to be explicit, quantitative and sensitive and directly relate to desired conditions. Existing data, feasibility of monitoring and the subsequent management affect are also important considerations. Encounter indicators can be used as proxies for biophysical impact, i.e. the density and number of overnight groups is directly related to campsite impacts.

- **GAOT capacity allocation is the primary indicator** *(Highlighted in Orange)*, the first and most sensitive trigger for going to permit system. Once that trigger is reached within a zone, that zone would require the permitting system. Each zones allocated number of GAOT is displayed in Table 6.

  Camping zones GAOT would be monitored through the forest current mandatory wilderness registration system that requires all overnight visitors to register at trailheads prior to entering the wilderness. Zones that have triggered an allocation (permit system) would be monitored for the other indicators. If thresholds are exceeded a suite of management actions will be triggered to bring conditions back in compliance, including adjusting the capacity allocation numbers.

- Campsite encounters, campsite impacts, trail encounters and cumulative campsite impact ratings will be monitored to determine if desired conditions are being achieved for a zone that has moved to a permitting system. Data will be obtained through current monitoring protocols that include current mandatory wilderness registrations for overnight use, wilderness ranger campsite inventories and patrol logs. Once a GAOT is implemented these indicators will inform subsequent adjustments (up or down).
- Campsite impact guidelines and inventory protocols have been changed regionally to reflect current Rocky Mountain Region (Region 2) standards and monitoring protocols. Current campsite inventory and impact guidelines were completed with Region 2's "Rapid Assessment" protocol.

Thresholds

Thresholds are a level of indicator condition attainment that must be reached to achieve forest goals as defined in LRMP. Thresholds are used to assure that individual projects are in compliance with LRMP desired conditions described in forest wide standards and guidelines as well as in each management area prescriptions (Chapter 2). Thresholds serve as the minimum acceptable condition for change in indicators, which serve as triggers for management action when exceeded.

Management Actions

Management actions would be implemented in phases, utilizing and starting with the minimum tool. The intent of minimum tool is to phase management actions and begin with the least restrictive action and monitor to see if conditions come back to meeting indicator thresholds (desired conditions). If not, then the next phases of management actions would be implemented.

Assumptions

- Overnight groups (≤10 people) will occupy only one campsite per night. Average group size is 2.8 people.
- While the inventoried compliant campsites per zone form the baseline GAOT capacity, visitors will not be restricted to these sites within the primitive and pristine zones.
- The campsite inventory represents a near census of available sites.
- Professional judgement was exercised where the GAOT capacity was deemed to low or high for desired conditions in recognition of visitor use patterns (West Maroon, Hasley).
- For the purposes of this broad analysis, all of the compliant campsites within the 1.13 management area were adopted and considered designated. Prior to implementation of new designated sites, site specific analysis would be required to determine which sites can be adopted and still meet the desired conditions for the area.

It is not anticipated that the proposed plan will negatively affect existing permitted outfitter and guide operations or displace them to other parts of the MBSW. Within 1.13 MA (Semi-Primitive), a number of GAOT allocations would be reserved for existing commercial outfitters

based on current permitted use. Within the 1.12 (Primitive) and 1.11 (Pristine) MA's existing permitted days were considered in the development of allocation ratios such that they could be accommodated without adjustment to public GAOT allocations and without negatively effecting desired conditions or standards.

The following tables display the adaptive overnight visitor use plan for the MBSW. Indicators, thresholds and management actions are displayed by LRMP wilderness Management Area's (Pristine, Primitive, and Semi-Primitive). The GAOT overnight allocation (Table 6) is the primary indicator, the first and most sensitive trigger for going to permit system and is highlighted in orange. Once that trigger is reached within a zone, that zone would require the permitting system.

Table: 7. Proposed Plan - Table for Pristine Management Areas

LRMP Mgt. Area	Indicator	Threshold	Management Actions
1.11 (Pristine)	GAOT/Zone	Overnight GAOT does not exceed 50% of compliant, inventoried campsites for any one zone	*Utilizing current data, zone GAOT will be analyzed in NEPA and then monitored through the annual analysis of required registration data.*
			Management Action Phase 1: If a Zone GAOT capacity is on a trajectory to exceed a threshold initiate an education campaign to temporally and geographically redistribute use. Utilize traditional and net multi-media outreach, VIS, volunteers and trailhead materials.
			Management Action Phase 2: If a Zone GAOT capacity threshold is exceeded in any 3 years of a 5 year period, implement a GAOT capacity allocation (permit) system. Initial GAOT capacity allocations are displayed in Table XX.
			Management Action Phase 3: Adjust GAOT capacity allocation to increase or decrease group numbers based on the status of other indicators. Do this every 3 years after implementation of a GAOT capacity allocation system.
	Campsite Encounters	No other party within sight or sound of an occupied campsite should be encountered on 80 percent of observed days	*Data will be obtained through Wilderness ranger patrol logs.*
			Management Action Phase 1: Initiate education campaign to temporally and geographically redistribute use. Utilize traditional and net multi-media outreach, VIS, volunteers, trailhead materials and staff ranger patrols.
			Management Action Phase 2: Rehab select campsites in close proximity. Sign rehabbed campsites as closed if use continues.
			Management Action Phase 3: Implement site specific campsite closures, length of stay limits, dog prohibitions and/or campfire prohibitions. Decrease zone GAOT allocation.
	Campsite Impact Rating	Average Rapid Assessment (RA) site impact rating per zone does not exceed 2	*Data will be obtained through Rapid Assessment campsite inventories completed for every zone on a 5 year rotation.*
			Management Action Phase 1: Initiate education campaign focused on LNT principles regarding campsite selection and use. Utilize traditional and net multi-media outreach, VIS, volunteers, trailhead materials and staff ranger patrols.
			Management Action Phase 2: Rehab campsites that exceed a rating of 2. Sign rehabbed campsites as closed if use continues. Encourage human waste pack out by providing free waste bags.
			Management Action Phase 3: Implement site specific campsite closures, seasonal closures, length of stay limits, group size limits and/or campfire prohibitions. Restrict stock use and/or numbers. Require human waste pack out. Decrease zone GAOT allocation.
	FP Encounter Guideline	No more than two other overnight parties encountered during cross-country travel per day on 80 percent of observed days.	*Data will be obtained through Wilderness ranger patrol logs*
			Management Action Phase 1: Initiate an education campaign to temporally and geographically redistribute use. Encourage one way travel through zones and alternate access routes. Utilize traditional and net multi-media outreach, VIS, volunteers, trailhead materials and staff ranger patrols.
			Management Action Phase 2: Rehab user created trails. Destroy way marking cairns/duckies. Reach out to 3rd party information providers to discourage or distribute use.
			Management Action Phase 3: Implement site specific or area closures, seasonal closures, length of stay limits, group size limits, dog prohibitions and/or campfire prohibitions. Restrict stock use and/or numbers. Decrease zone GAOT allocation.
	Cumulative Campsite Impact Rating	Cumulative campsite impact rating for all inventoried campsites within a zone show no net gain at 5 year review	*Data will be obtained through Rapid Assessment campsite inventories completed for every zone on a 5 year rotation (20% of zones inventoried annually).*
			Management Action Phase 1: Initiate education campaign focused on LNT principles regarding campsite selection and use. Utilize traditional and net multi-media outreach, VIS, volunteers, trailhead materials and staff ranger patrols.
			Management Action Phase 2: Rehab campsites that exceed a rating of 2 for 1.11 Pristine Areas. Sign rehabbed campsites as closed if use continues. Encourage human waste pack out by providing free waste bags.
			Management Action Phase 3: Implement site specific campsite closures, seasonal closures, length of stay limits, group size limits and/or campfire prohibitions. Restrict stock use and/or numbers. Require human waste pack out. Restrict camping to designated campsites. Decrease zone GAOT allocation

Table: 8. Proposed Plan - Table for Primitive Management Areas

LRMP Mgt. Area	Indicator	Threshold	Management Actions
1.12 (Primitive)	GAOT/Zone	Overnight GAOT does not exceed 75% of compliant, inventoried campsites for any one zone	*Utilizing current data, zone GAOT will be analyzed in NEPA and then monitored through the annual required registration system.*
			Management Action Phase 1: If a Zone GAOT capacity is on a trajectory to exceed a threshold initiate an education campaign to temporally and geographically redistribute use. Utilize traditional and net multi-media outreach, VIS, volunteers and trailhead materials.
			Management Action Phase 2: If a Zone GAOT capacity threshold is exceeded in any 3 years of a 5 year period, implement a GAOT capacity allocation (permit) system. Initial GAOT capacity allocations are displayed in Table XX.
			Management Action Phase 3: Adjust GAOT capacity allocation to increase or decrease group numbers based on the status of other indicators. Do this every 3 years after implementation of a GAOT capacity allocation system.
	Campsite Encounters	No more than six occupied campsites within sight or sound should be encountered on 80 percent of observed days	*Data will be obtained through Wilderness ranger patrol logs.*
			Management Action Phase 1: Initiate education campaign to temporally and geographically redistribute use. Utilize traditional and net multi-media outreach, VIS, volunteers, trailhead materials and staff ranger patrols.
			Management Action Phase 2: Rehab select campsites in close proximity. Sign rehabbed campsites as closed if use continues.
			Management Action Phase 3: Implement site specific campsite closures, length of stay limits, dog prohibitions and/or campfire prohibitions. Restrict camping to designated sites. Decrease zone GAOT allocation.
	Campsite Impact Rating	Average Rapid Assessment (RA) site impact rating per zone does not exceed 3	*Data will be obtained through Rapid Assessment campsite inventories completed for every zone on a 5 year rotation.*
			Management Action Phase 1: Initiate education campaign focused on LNT principles regarding campsite selection and use. Utilize traditional and net multi-media outreach, VIS, volunteers, trailhead materials and staff ranger patrols.
			Management Action Phase 2: Rehab campsites that exceed a rating of 3. Sign rehabbed campsites as closed if use continues. Encourage human waste pack out by providing free waste bags.
			Management Action Phase 3: Implement site specific campsite closures, seasonal closures, length of stay limits, group size limits and/or campfire prohibitions. Restrict stock use and/or numbers. Require human waste pack out. Restrict camping to designated campsites. Decrease zone GAOT allocation.
	FP Encounter Guideline	No more than 12 other overnight parties encountered per day on a system trail on 80 percent of the days during each use season.	*Data will be obtained through Wilderness ranger patrol logs*
			Management Action Phase 1: Initiate an education campaign to temporally and geographically redistribute use. Encourage one way travel through zones and alternate access routes/destinations. Utilize traditional and net multi-media outreach, VIS, volunteers, trailhead materials and staff ranger patrols.
			Management Action Phase 2: Rehab user created trails. Destroy way marking cairns/duckies. Reach out to 3rd party information providers to discourage or distribute use. Change access conditions.
			Management Action Phase 3: Implement site specific or area closures, seasonal closures, length of stay limits, group size limits, dog prohibitions and/or campfire prohibitions. Restrict stock use and/or numbers. Restrict travel to one-way. Restrict trailhead parking. Decrease zone GAOT allocation.
	Cumulative Campsite Impact Rating	Cumulative campsite impact rating for all inventoried campsites within a zone show no net gain at 5 year review	*Data will be obtained through Rapid Assessment campsite inventories completed for every zone on a 5 year rotation (20% of zones inventoried annually).*
			Management Action Phase 1: Initiate education campaign focused on LNT principles regarding campsite selection and use. Utilize traditional and net multi-media outreach, VIS, volunteers, trailhead materials and staff ranger patrols
			Management Action Phase 2: Rehab campsites that exceed a rating of 3 for 1.12 Primitive MA's. Sign rehabbed campsites as closed if use continues. Encourage human waste pack out by providing free waste bags.
			Management Action Phase 3: Implement site specific campsite closures, seasonal closures, length of stay limits, group size limits and/or campfire prohibitions. Restrict stock use and/or numbers. Require human waste pack out. Restrict camping to designated campsites. Decrease zone GAOT allocation.

Table: 9. Proposed Plan - Table for Semi-Primitive Management Areas

LRMP Mgt. Area	Indicator	Threshold	Management Actions
1.13 (Semi-Primitive)	GAOT/Zone	Overnight GAOT does not exceed 100% of compliant, inventoried campsites for any one zone	*Utilizing current data, zone GAOT will be analyzed in NEPA and then monitored through the annual required registration system.*
			Management Action Phase 1: If a Zone GAOT capacity is on a trajectory to exceed a threshold initiate an education campaign to temporally and geographically redistribute use. Utilize traditional and net multi-media outreach, VIS, volunteers and trailhead materials.
			Management Action Phase 2: Once a Zone GAOT capacity threshold is exceeded in any 3 years of a 5 year period, implement a GAOT capacity allocation (permit) system. Initial GAOT capacity allocations are displayed in Table XX.
			Management Action Phase 3: Adjust GAOT capacity allocation to increase or decrease group numbers based on the status of other indicators. Do this every 3 years after implementation of a GAOT capacity allocation system.
	Campsite Encounters	Camping restricted to designated sites only	*Data will be obtained through Wilderness ranger patrol logs.*
			Management Action Phase 1: Initiate education campaign to temporally and geographically redistribute use. Utilize traditional and net multi-media outreach, VIS, volunteers, trailhead materials and staff ranger patrols. Provide coordinates of "recommended" campsites.
			Management Action Phase 2: Prior to implementation of a zone permit system, Implement designated sites where none currently exist by adopting sustainable, appropriate user created sites.
			Management Action Phase 3: Implement site specific campsite closures, length of stay limits, dog prohibitions and/or campfire prohibitions. Reduce the number of designated sites. Decrease zone GAOT allocation.
	Campsite Impact Rating	Average Rapid Assessment (RA) site impact rating per zone does not exceed 4	*Data will be obtained through Rapid Assessment campsite inventories completed for every zone on a 5 year rotation.*
			Management Action Phase 1: Initiate education campaign focused on LNT principles regarding campsite selection and use. Utilize traditional and net multi-media outreach, VIS, volunteers, trailhead materials and staff ranger patrols.
			Management Action Phase 2: Rehab campsites that exceed a rating of 4. Sign rehabbed campsites as closed if use continues. Encourage human waste pack out by providing free waste bags.
			Management Action Phase 3: Implement site specific campsite closures, seasonal closures, length of stay limits, group size limits and/or campfire prohibitions. Restrict stock use and/or numbers. Require human waste pack out. Restrict camping to designated campsites. Decrease zone GAOT allocation.
	FP Encounter Guideline	No more than 20 other overnight parties encountered per day on a system trail on 80 percent of the days during each use season.	*Data will be obtained through Wilderness ranger patrol logs*
			Management Action Phase 1: Initiate an education campaign to temporally and geographically redistribute use. Encourage one way travel through zones and alternate access routes/destinations. Utilize traditional and net multi-media outreach, VIS, volunteers, trailhead materials and staff ranger patrols.
			Management Action Phase 2: Rehab user created trails. Destroy way marking cairns/duckies. Reach out to 3rd party information providers to discourage or distribute use. Change access conditions.
			Management Action Phase 3: Implement site specific or area closures, seasonal closures, length of stay limits, group size limits, dog prohibitions and/or campfire prohibitions. Restrict stock use and/or numbers. Restrict travel to one-way. Restrict trailhead parking. Decrease zone GAOT allocation.
	Cumulative Campsite Impact Rating	Cumulative campsite impact rating for all inventoried campsites within a zone show no net gain at 5 year review	*Data will be obtained through Rapid Assessment campsite inventories completed for every zone on a 5 year rotation (20% of zones inventoried annually).*
			Management Action Phase 1: Initiate education campaign focused on LNT principles regarding campsite selection and use. Utilize traditional and net multi-media outreach, VIS, volunteers, trailhead materials and staff ranger patrols.
			Management Action Phase 2: Rehab campsites that exceed a rating of 4 for 1.13 Semi-Primitive Areas. Sign rehabbed campsites as closed if use continues. Encourage human waste pack out by providing free waste bags.
			Management Action Phase 3: Implement site specific campsite closures, seasonal closures, length of stay limits, group size limits and/or campfire prohibitions. Restrict stock use and/or numbers. Require human waste pack out. Restrict camping to designated campsites. Decrease zone GAOT allocation.

Monitoring

The proposed plan is data driven and adaptive which requires long term monitoring of the Maroon Bells-Snowmass Wilderness (MBSW). Monitoring for each indicator will be completed every year under a variety of different instruments, primarily through existing; required registration for overnight camping, wilderness ranger patrol logs and rapid assessment campsite inventory process. In general, a trend will be calculated every 2 years to determine if a threshold has been exceeded and if a management action is needed. Changes will be made if the plan is not meeting the objectives that were established in this plan. Frequency will be dependent on each indicator. If any indicator is exceeded for 2 years, immediate action can occur. The appropriate management action will be implemented as administrative capacity allows.

Monitoring data will be recorded annually after the final decision and implementation of the plan and any subsequent management actions for the first 3 years. A USFS interdisciplinary team along with key partners will meet on an annual basis to review the monitoring data to determine whether any management actions are needed and/or if previous implementation or actions has moved the area toward the desired conditions. The team will also review implementation activities and document compliance.

Table 10. Monitoring Guidelines

Indicator	**Data Source**	**Monitoring Schedule**	**Trigger Timeline**
GAOT/Zone	Required registration	Annual	Annual review of management actions shown in table 7-9.
Campsite Encounters	Patrol logs	Annual	2 years
Campsite Impact Rating	Rapid Assessment site inventory	5 Year rotation	At 5 year review
Impacted surface area at campsites	Rapid Assessment site inventory	5 Year rotation	At 5 year review
Trail Encounters	Patrol logs	Annual	2 years

Adaptive Management Action Implementation

If implementation of any of the management actions within any given camping zone begins to show improvement to identified indicators, then the Forest will continue to monitor according to the monitoring schedule. This demonstrates a trend toward meeting the desired conditions. In conformance with timeline above, if desired conditions for all indicators are achieved GAOT allocations could be adjusted. Adjustments would have to meet indicator thresholds.

If the implementation of any management action does not show improvement to the associated indicator condition within 2 years of completion, the subsequent phased/management action may be triggered. Through monitoring, determinations will be made from the data as to whether there is evidence that thresholds are being approached. Before adjusting management actions, the forest will ensure the probable cause of the issue has been identified and whether or not previously identified management actions would address the issue.

Implementation of management actions found within the plan will follow the phase schedule in Tables 7-9. Rationale for escalating actions will be documented but no further analysis will be done. Additional management actions or tools could be used as long as they are meeting the desired condition of the LRMP MA's, the defined indicators and thresholds.

Chapter 5: Next Steps

Draft Environmental Assessment (EA)

The proposed plan is an activity implementing a land management plan and subject to the objection process described in 36 CFR 218 Subparts A and B. Based on the comments received on the proposed plan, a Draft Environmental Assessment (EA) will be developed. The Draft EA will synthesize the management alternatives into a comprehensive document that analyzes the impact topics, environmental effects, and identifies an USFS preferred alternative. The Forest Service will provide another opportunity to comment upon completion of the draft environmental assessment.

Final EA and Final Maroon Bells-Snowmass Wilderness Overnight Visitor Use Management Plan

Based on the comments received on the Draft EA, a Final EA and Final Plan will be released, accompanied by a Draft Decision Notice, followed by a 45 day objection period. The Final MBSW Overnight Visitor Use Plan will consist of a document describing elements of the selected alternative that will describe final; zones, indicators, thresholds and management actions to be used for overnight use management.

Implementation of Permit System

This plan will not dictate implementation methods or associated fees if a permit system is triggered. The Authorized Officer will consider implementation methods based on; legal authorities, feasibility, internal expertise and USFS physical and financial capabilities. A limited entry permit system could be implemented in phases for zones that are exceeding the GAOT allocation as administrative capacity allows.

Several methods for permitting include but are not limited to; "Rec.gov" which is an internet based reservation system that charges an administrative fee for reservations but no fee is used for program management on site. Another possible method is to apply an overnight permit fee that would result in revenue available for on-site program management. This would require a secondary public process in accordance with Federal Lands Recreation Enhancement Act (FLREA).

Glossary of Terms

Adaptive Management: An adaptive management strategy defines desired conditions with indicators and thresholds. When thresholds are exceeded for a Land and Resource Management Plan (LRMP) Management Area (MA), management actions are triggered to achieve compliance. It is outcome focused planning and implementation done to ensure that defined conditions are met or achieved.

Cole Condition Class: Campsite inventory and monitoring protocol.

Federal Lands Recreation Enhancement Act (Title VIII) (FLREA): Act that allows federal agencies to establish, modify, charge, and collect recreation fees at Federal recreational lands and waters as provided based on specific criteria and public involvement.

Land and Resource Management Plans (LRMP): National Forest Land and Resource Management Plans (Forest Plan) are developed to guide all natural resource management activities and establish standards/guidelines. The purpose of the Plan is to provide for the use and protection of Forest resources, fulfill legislative requirements, and address local, regional, and national issues and concerns.

Management Areas: "Management Areas (MA's) are designated mapped areas prescribed in forest Land and Resource Management Plans (LRMP) that provide desired conditions, objectives and specific direction for all management actions.

Group's At One Time (GAOT): Primary Indicator in the *Maroon Bells- Snowmass Overnight Visitor Use Management Plan* referring to the total number of "Groups At One Time" recommended per zone in order to meet forest plan management area prescriptions.

Guideline: Forest plan guidelines are a preferred of advisable course of action or level of attainment designed to meet the forest plans overall goals, objectives as well as specific "management area" prescriptions. .

Indicator: Specific, measurable variables that are indicative of condition.

Management actions: What will be implemented, generally in phases, after a threshold is exceeded, based on monitoring.

National Environmental Policy Act (NEPA): The National Environmental Policy Act of 1969 (NEPA) is the mandate of any federal Agency or department for the protection of the environment.

Recreation Opportunity Spectrum (ROS): ROS classification system is designed to characterize and help manage a spectrum or range of recreation opportunities. ROS is used as guidance for managers when prescribing desired conditions and objectives for management areas as part of forest planning decisions.